

Storm Barra, 7 to 8 December 2021

Storm Barra brought strong winds and heavy rain across the UK from 7 to 8 December 2021. Winds gusted at 60 to 70Kt (69 to 81mph) in exposed coastal locations, with the highest gust of 75Kt (86mph) at Aberdaron, Gwynedd. Storm Barra brought severe, although not exceptional, weather conditions to the UK. However, this was a much more extreme storm for Ireland, with Met Eireann, the Irish national meteorological service, issuing a red warning for wind for Counties Kerry and Cork.

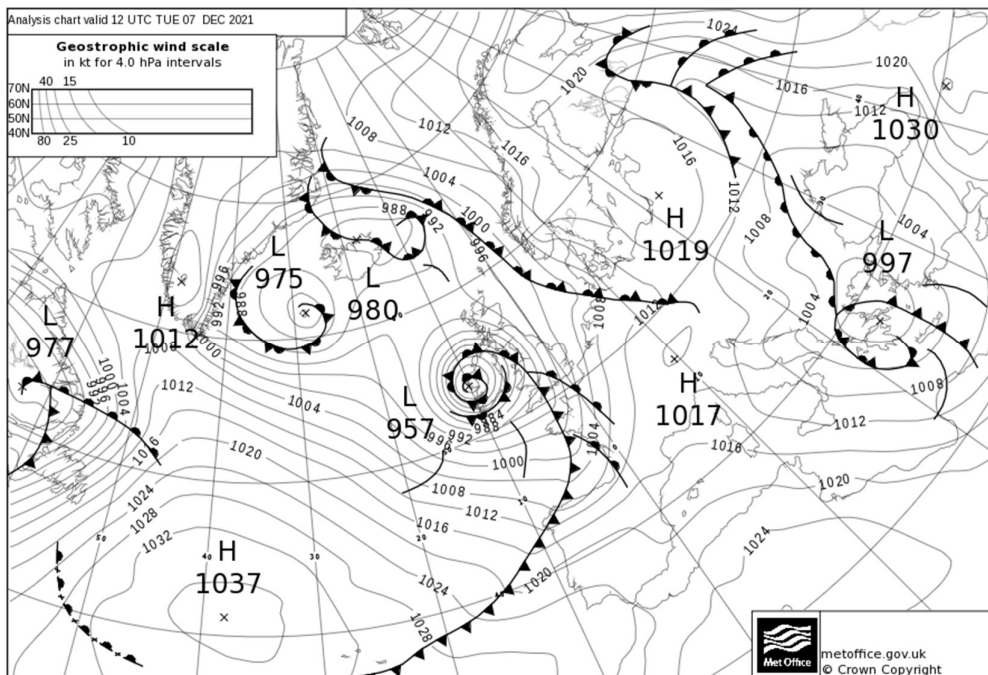
Deep Atlantic winter storms normally track rapidly eastward across the UK, clearing into the North Sea, but, unusually, this storm remained over the UK throughout 8th December, gradually weakening as the low pressure centred filled.

Impacts

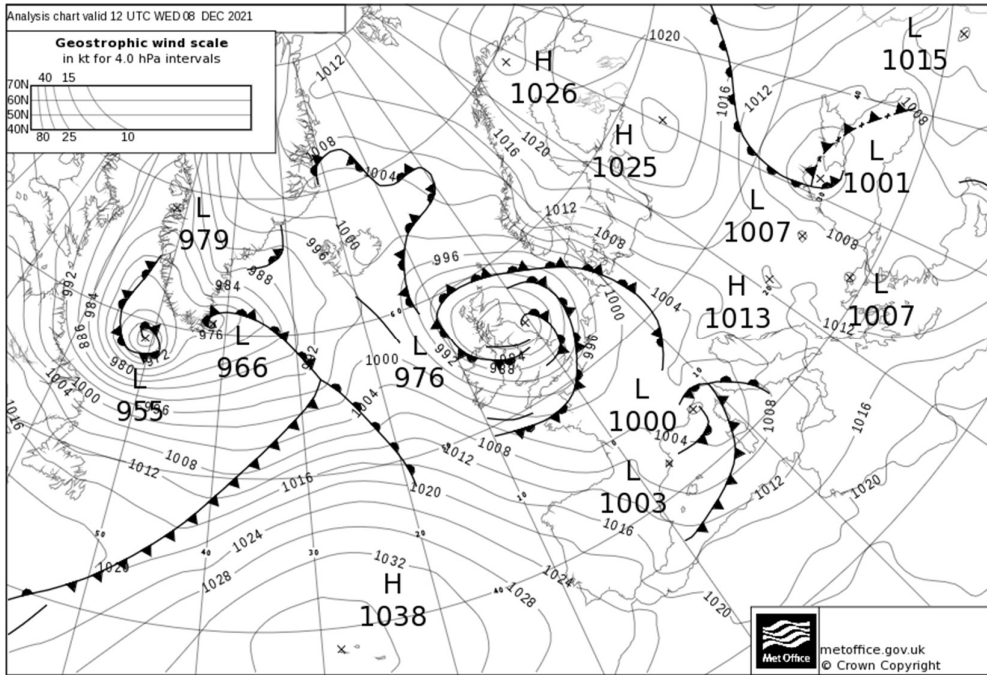
Storm Barra caused significant weather impacts across Ireland, including widespread power outages, but the storm had weakened by the time it reached the UK, so weather impacts were generally less. Nevertheless, the storm hampered efforts to reconnect the remaining properties which had lost power as a result of storm Arwen 11 days earlier. Some snow fell across upland areas in the north, causing difficult driving conditions. Large waves battered exposed coastlines, with damage to Aberystwyth promenade, while Isle of Wight ferry services were cancelled.

Weather data

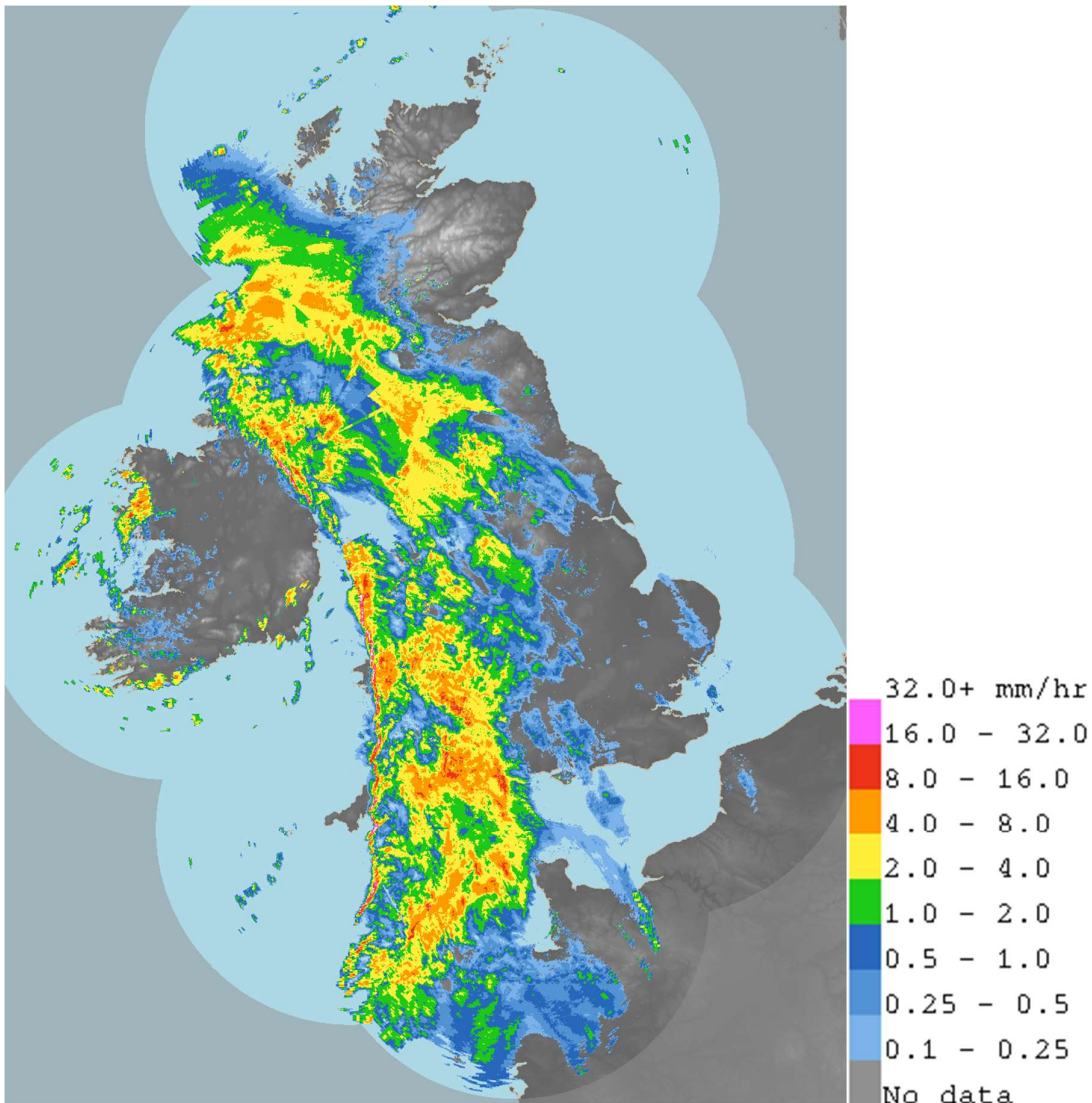
The analysis chart at 1200 UTC 7 December 2021 shows storm Barra as the deep area of low pressure centred to the west of Ireland.



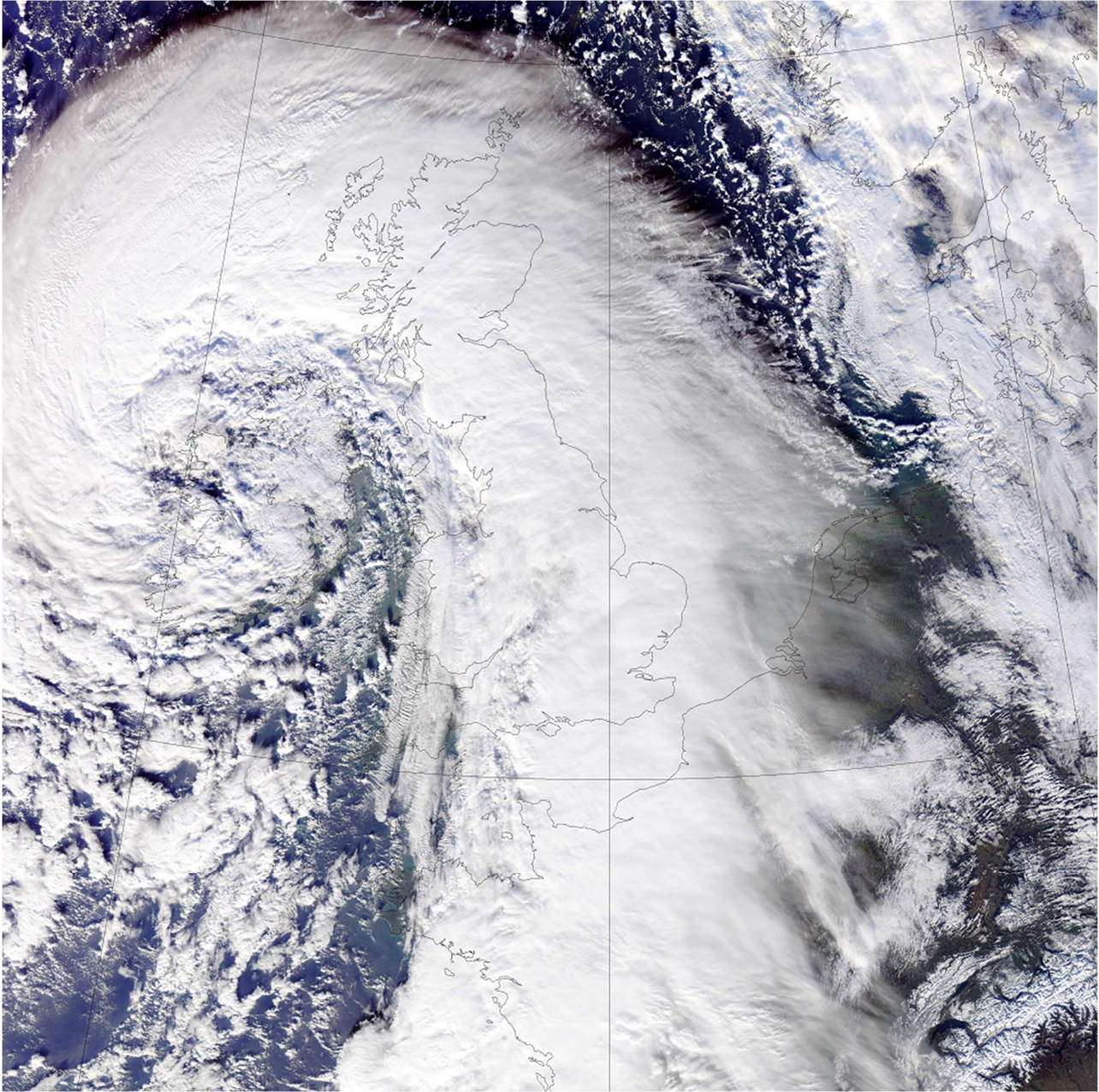
The analysis chart at 1200 UTC 8 December 2021 shows storm Barra centred over the UK, with the storm now slow moving and weakening with the low pressure centre gradually filling.



The rain-radar image below at 1000 UTC 7 December 2021 shows a swathe of heavy rain from weather fronts associated with storm Barra, with a prominent line of intense rainfall associated with the back edge of the cold front.

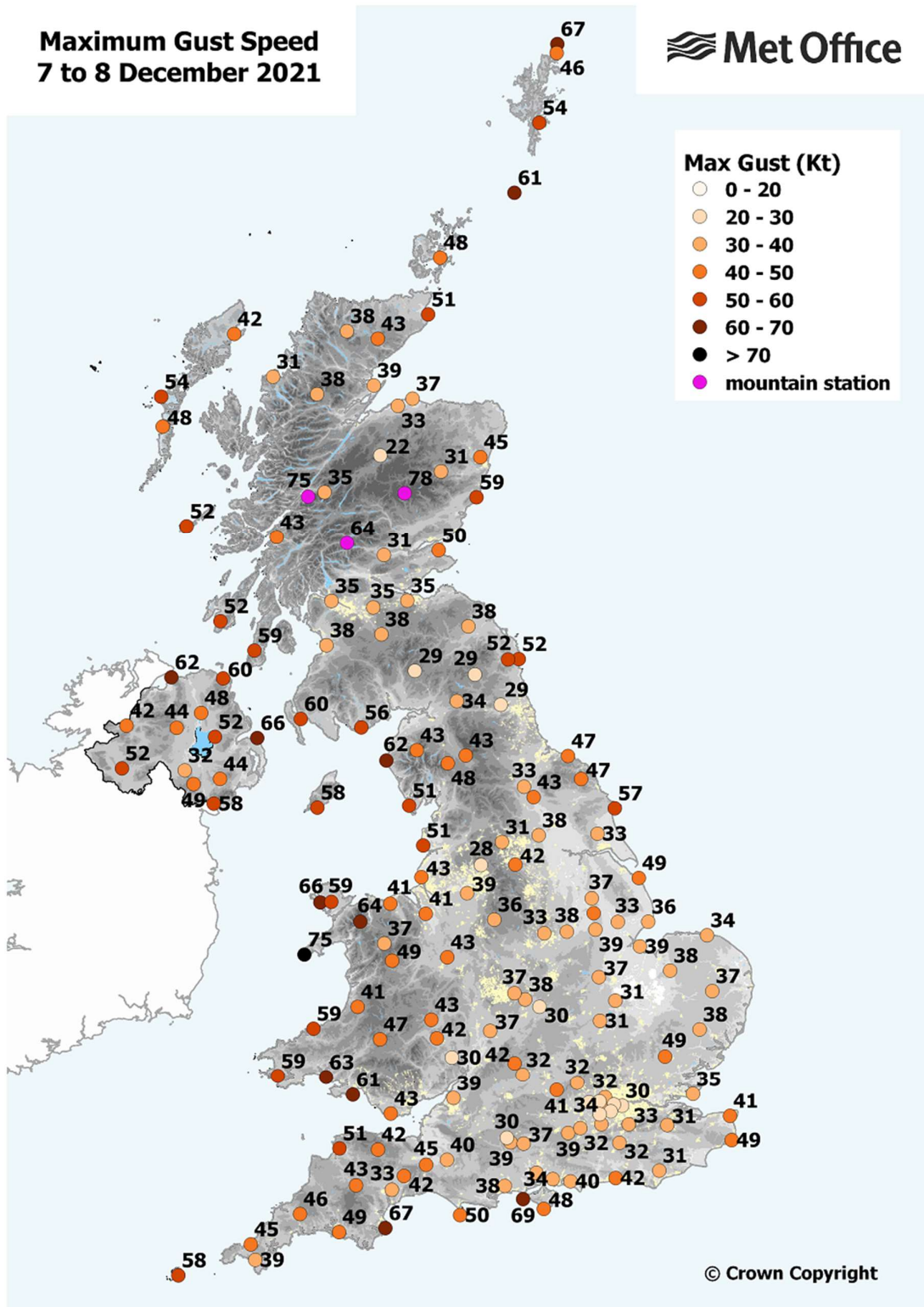


The satellite image at 1215UTC on 7 December 2021 shows the prominent hook of cloud from storm Barra, with the UK obscured by cloud. The strongest winds were located to the south of the low's centre, here across the west of Ireland. Note the snow-covered Alps in the far bottom right. Image copyright Met Office / NOAA / NASA.

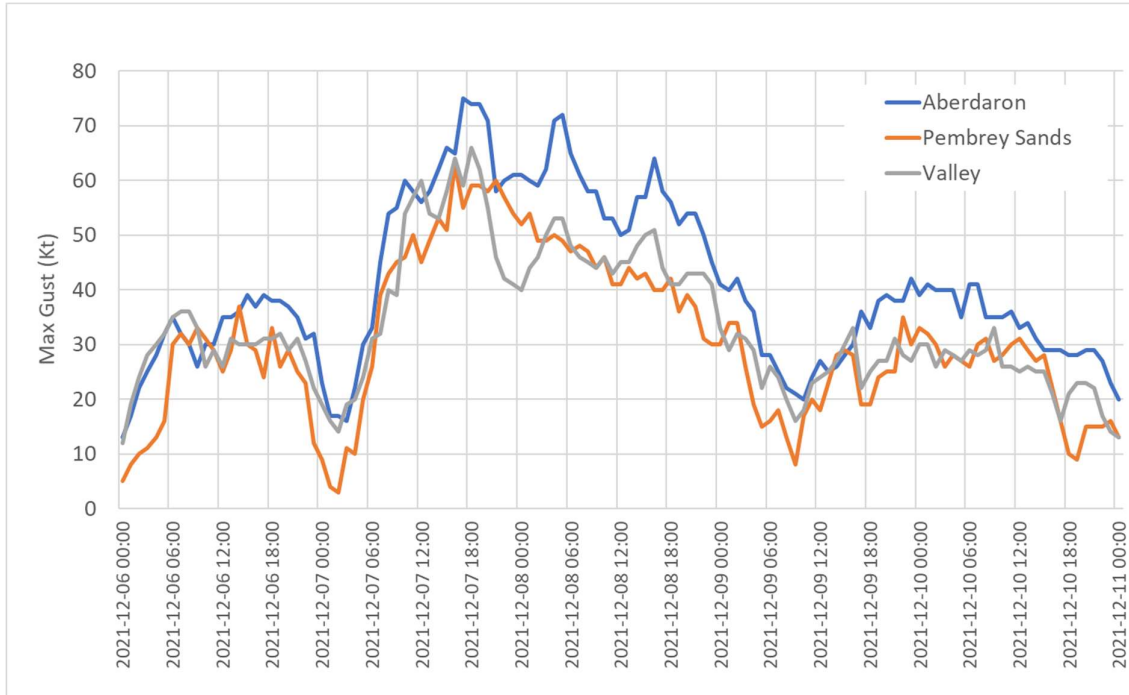


The map below shows maximum gust speeds from storm Barra. Wind gusts reached 50 to 60Kt (58 to 69mph) or higher in exposed coastal locations in the west. The highest gust was 75Kt (86mph) at Aberdaron (Gwynedd) – at the western tip of the Llyn Peninsula. Several other stations recorded gusts of over 65Kt (75mph).

Maximum Gust Speed 7 to 8 December 2021



The chart below shows hourly maximum gust speeds at Aberdaron, Valley (Anglesey) and Pembrey Sands (Dyfed). The highest gusts at these stations were 75Kt (86mph) at Aberdaron, 66Kt (76mph) at Valley and 63Kt (72mph) at Pembrey Sands. One feature of this storm was the length of time over which the highest gusts persisted. Often a storm of this type would track rapidly eastwards across the UK before moving into the North Sea, whereas storm Barra remained centred over the UK throughout the 8th. Maximum gust speeds exceeded 50Kt at Aberdaron from 0800 UTC on 7th to 2200 UTC on 8th – a period of 38 hours during which there were three distinct peaks in gust speeds over 60Kt, as apparent in the chart. This relatively prolonged period of high wind gusts was also observed during storm Ciara in February 2020.



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